TOOLKIT

Solution-Finding: A Five-Step Process Toolkit

This toolkit was adapted from

atd FORUM

Connect. Collaborate. Share.

Contents

Introduction

"Challenges are what make life interesting and overcoming them is what makes life meaningful." **—Joshua J. Marine**

A universal aspect of organizational life for all companies or groups striving to achieve goals and stay competitive in a changing marketplace characterized by frequent disruptions is the need to continually get better at getting better.

This implies a variety of strategies and tactics.

Chief among these is finding solutions for business challenges by constantly assessing the current state and pursuing opportunities for competitive advantage. Challenges or problems come in all shapes and sizes. Some are referred to as puzzles—because the solution may be as simple as finding one piece of information and the problem is fixed forever. Others are conundrums because there are solutions but getting to the most optimal one for the situation requires research and analysis. Still others, sometimes called wicked problems, are huge, complex, and amorphous with many moving interdependent parts.

Dave Snowden, the creator of the Cynefin framework for problem solving, uses four variations to describe problems. These are on a continuum and include:

- Simple—predictable and can generally be solved with research and applying industry best practices.
- Complicated—these generally take expert assistance and the options for solution vary.
- Complex—these involve fluid and unclear situations and therefore creative solutions.
- Chaotic—these problems generally require immediate triage to stabilize the situation and then moving to a major change.

David Langford, of Langford International, uses the term *probletunity* to indicate the opportunity to improve the operating system. There are myriad terms used for problems and challenges including dilemma, quandary, and predicament. Whatever your organization calls them, you need processes in place to solve them. And before diving into any solution-finding process, you need clarity on the level of the problem.

Problems with various level of complexity are not unusual for talent leaders. A prominent role in our work as strategic business partners is "heeding the call," as Chapter 6 in ***Leading the Learning Function*** states. This means working strategically with other business partners to determine the skills needed and then, if they require training, leveraging the various tools in our portfolio to design the most effective learning experiences to develop these identified skills.

The Harless and Mager Front-End Analysis (FEA) Model is a standard for our profession. We also have other tools such as Gilbert's Grid, ADDIE, SAM, and Action Mapping in our portfolio.

But what happens when the talent team is given a more generic organizational challenge to work on? These challenges might include employee retention, engagement, being more innovative, enhanced business growth, or communication.

The purpose of this ATD Forum Toolkit is to provide tools and techniques for talent development professionals serving as strategic business partners to use in their solution-finding endeavors.

This toolkit includes:

- General solution-finding processes for responding to the "What should we do?" question
- Ideas for problems in the middle of the complexity continuum
- Ideas for problems assigned to teams and groups of employees

While some of the basic tenets of tools in the talent space are incorporated, the framework provided includes guidelines and options for tools from other disciplines such as project management, design thinking, AGILE, and quality management. Additionally, this toolkit is best suited for talent professionals with some experience in the solution-finding arena and those with mature critical, analytical, and synthesis thinking skills. Problem solving takes considerable study and experience to master.

Need for Standard Approach or Methodology

Just like pork barbeque, Brunswick stew, or chili, the recipe for problem solving has some basic ingredients but with many customizations based on context. For example, in the western part of North Carolina, barbeque is tomato based, and in the eastern part it is mustard based; and both are chopped pork and never beef brisket!

This same concept is true for various **problem-solving frameworks**, such as Plan Do Study Act (PDSA), CIRCLES, DMAIC, Creative Strategy, the Iceberg Framework, and the McKinsey Method. While the specific steps and terms used differ, there are some basic components that all these methods have in common, including:

- Defining the problem within the operating system or context
- Exploring the causes and isolating the root cause
- Generating options for solutions
- Evaluating the various solution options based on customer need, feasibility, effectiveness, and suitability
- Implementing the selected solution using a pilot
- Reviewing the pilot results and assessing the outcome against the goal
- Standardizing the new process and ensuring it is known throughout the organization.

Within an organization, having a basic and common problem-solving methodology or recipe to identify solutions promotes communication and leverages learning across organizational boundaries.

A structured framework with tools and techniques provides opportunities for being more creative. One way to decide which framework to use is to use the one currently most prevalent in your organization. In the 2007 *Harvard Business Review* article "**Preparing for the Perfect Product Launch**," Jim Hackett, former CEO of Steelcase and Ford, talks extensively about the need for problem solving to include the right amount of thinking before implementation. But more importantly, he shares the story of creating an approach for his entire organization to use, thus building internal capabilities and creating a common language to move forward with effective problem solving across all aspects of the organization.

A Recipe for Success

This toolkit presents a 5-step process for solution finding. While these steps look separate on paper, in practice they run together, overlap, and may be iterative.

And just like a cooking recipe, after making the dish multiple times, you tweak, adjust, add, and delete as needed. Additionally, you use different variants of the recipe depending on the need. For example, for a family meal with picky eaters you use one format. For a cookout contest with a focus on hot and spicy, another version is more appropriate.

Each step of the solution-finding journey includes lists for the following:

- Questions to ask
- Ideas or actions to consider
- Options for tools
- Sage advice or points to ponder to avoid pitfalls

Because the toolkit is designed as a smorgasbord of ingredients, you and your team choose the options best suited for you, your organization, your industry, and of course, the nature of the challenge.

Problem solving, like much of project management and leadership, is both science and art. The parameters for the choices you make might include the problem's complexity, the resources available, the time constraints imposed, the budget, and the context. Problem-solving is a skill set, but it also requires other skills. Like all projects, communication, organization, leadership, change management, collaboration, and the experience of the team members are components that affect the results.

Some tools are suggested for various steps. You might know of other tools to insert. A goal is to enable all employees to make continuous improvements within the organizational system.

One of the huge benefits of a framework and the various tools is helping the team assess the issues using critical and analytic thinking based on data rather than jumping straight into solution options. A caution, however, is using a balance of structure to dive into the problem and yet not becoming so enamored with the tools that the team goes into analysis paralysis.

Some general tools to use during any problem-solving process include:

- AhHa Sheet
- Brainstorming
- Checklists
- Operational definitions for the project
- Parking Lot
- Plus Delta reviews
- Stop and Think questions
- Agendas and minutes with action items and retrospectives for meetings

Additionally, all solution-finding frameworks include analyses using data to assess the current state but also need some creativity built into the solutions. This implies continuously moving from diverging on options, assessing the options with criteria, and then converging to prioritize and focus on the new direction.

Setting the team up for success is imperative.

While the steps of the structured framework are critical, there are additional steps required to set the team up for success. Great problem solvers are made with study, practice, and learning from experience. However, there are things that can catalyze and improve the starting position.

Questions to ask:

- Is this a real problem or is it more of a puzzle, e.g. what are we trying to solve?
- What are the known constraints?
- What is the primary objective for the team?
- What is the level of complexity for the problem as it is currently stated? How might the level of complexity be determined?
- Is the problem worth solving?
- Has the problem been solved before?
- Is a team needed?
- Who will be the team leader, expert coach, and executive sponsors?

- What mindsets, skills, strengths, and perspectives are needed for the team to be most effective?
- What is the timeframe, how much time will the task take, and when is the solution needed?
- What resources will be needed including budget and technology, and where will these resources come from?

Ideas and or actions to consider:

- Define the problem as a clear and concise question.
- Is a tiger team concept an option?
- How will the members be trained on the problem-solving process?
- Will there be a physical space for the team, or will it be a virtual space?
- What technology is needed to support the project work?
- A rule of thumb: If a problem cannot be solved in three months, it might be too complex for this framework and for an internal team.

Options for tools:

Charter, POPE, Is … Is Not

Sage advice or points to ponder:

- According to research in ***Leading the Learning Function*** (2020, p. 296), teams are more productive when they represent a cross section of the organization and have diverse perspectives. Additionally, they need the right skills and strengths, which generally include a learner or growth mindset, strategic thinking, and the joy of working with others.
- Solution-finding teams need dedicated time and space. Research by David Benjamin and David Komlos indicates that teams meeting face-to-face are more effective with tackling problems.
- Make sure the charter is signed by the sponsor and the owner of the project.
- Clarity on purpose, direction, and complexity are imperative. Remember the adage, "If you don't know where you are going, any road will take you there."
- Having a standard process such as using an agile approach with rapid sprints, incremental deliverables, iterations, and a pilot helps the team stay on track. As Seth Godin states, "Waiting for perfect is never as smart as making progress."

Working on the Challenge—Steps to Discover a Solution

1. Plan for success—go slow to go fast.

The planning step involves studying the current situation, conducting further research, collecting more data, and understanding the pain points involved. This includes feedback from stakeholders, especially those directly affected by the problem.

Questions to ask:

- What are the initial conditions including the pain points for stakeholders and impact on the larger system? What are the known details for what, when, where, how, and why?
- Who are the stakeholders and customers—who is affected by the current conditions and what is the impact, e.g. how do they see it; Who "owns" the problem and what is their goal?
- What are the basic assumptions surrounding the current situation?
- What are the known barriers or constraints?
- What is the system or topic to influence or improve?
- What data is available and what needs to be collected?
- What are current assumptions about the problem that might not be supported with data?
- What are other questions that need to be answered?
- Who are we solving the problem for?
- Who are the other stakeholders involved in this situation?
- Why is the problem worth solving?
- What are the barriers the team might face?
- What is the scope of the problem? (Treat scope as a hypothesis.)
- If this problem has been addressed or solved before, who worked on it?

Ideas or actions to consider:

- The current state and / or baseline needs to be clearly stated—what is the normal state now?
- Collect all known data and information and provide it to the team for analysis.
- Capture every question the team asks—document and document some more.
- The final problem statement should never include the solution. For example, it should not be stated as "lack of communication."
- The final problem statement needs to include measures of success.

Options for tools:

Stakeholder mapping, decision tree, KWHW, RACI, Empathy Map, Persona, run or control charts, histogram, flowchart

Sage advice or points to ponder:

- Putting the final statement into a question can be useful. Design thinking proponents use the "How might we …" question technique. Using "might" instills possibility thinking and opens the door for various options rather than one solution. Using "we" implies collaborative co-design.
- Project documentation, including the option of a dynamic storyboard, enables the team to have the original issue as their starting position, even though it might change during the process. It ensures a common response to the "what, when, why, and how" questions that surface from stakeholders, and it provides a clear audit trail for decisions.
- Each step in the framework requires a decision; some refer to this as the "exit criteria."
- Many teams use the "Ready, fire and hope the aim is correct" approach. Don't do it! Use "ready, aim, fire" approach.

2. Understand the current situation—analysis and research.

This step includes analyzing the root cause rather than focusing on the symptoms. Once the root cause is identified and the problem is disaggregated into smaller problems, more research might need to be done to revise the problem statement and make assumptions about possible improvement ideas.

Questions to ask:

- What is the root cause, if currently known?
- Are there multiple root causes?
- What sources of information and data are needed—and how might they be located?
- What are benchmarks for how others address this conundrum?
- What does research suggest as a best practice for this process?
- What are the insights from the synthesis of all the data and research?
- What is the revised crisp problem statement and how was the original problem statement reframed?
- What is the vision for the improvement or future state once the problem is solved?
- Who will benefit most from this improvement effort?
- What are the current pain points and who do they affect?
- What are the needs of the beneficiaries?
- What are the barriers to improvement?

Ideas or actions to consider:

- Solve for the specific process and simultaneously keep your eye on the larger operating system.
- Break the problem down or disaggregate it into basic elements.
- Identify the best practice approaches for each of the component parts.
- Based on the knowledge and experience of the team list all your assumptions about the process.

Options for tools:

5 Whys, Fishbone, RBT, SWOT, control or run charts, benchmarking other companies, stakeholder mapping, RACI, check sheets to record data over time, creative strategy matrix

Sage advice or points to ponder:

- The focus of the improvement is a process, a series of related tasks with a clearly defined starting and ending point. However, the process is part of a system, or a series of many related processes. A change in a process can, and usually does, affect the larger system.
- It is critical to understand the process you are changing and the causes of variation. Clarify the common causes (those inherent in a process) and the special causes (variation arising from sources that are unpredictable and come and go.)

3. Develop options for improvement—do.

The previous steps help the team have more clarity on the real problem. Once they propose solutions, the root cause should be eliminated. Skipping over the earlier steps might be a faster road, however, solving the wrong problem is not helpful.

Questions to ask:

- What are new insights based on the research and the data gathered?
- What is now considered the root cause[s]?
- What is the revised or reframed problem statement, and did it change the hypothesis and / or scope?
- What are the possibilities or alternatives to create value for the stakeholders and meet business objectives?
- Do the proposed solution options eliminate the root cause of the challenge?
- What are the pros and cons for each alternative, including the risks? Evaluate the tradeoffs for various options.
- What does a competitor do in this situation?
- Who are the experts on this issue or for each component and what do they recommend?

- Given all the evidence, what are the current options for a solution? Mine the gold and find the themes and insights; put them together for several options to present to executives and include the actions that must be taken to implement each of these.
- Share options and get feedback from major stakeholders and users.
- Filter and curate from the various options based on feedback.
- Based on the feedback, co-design a pilot using the 80/20 rule for the most impact.

Ideas or actions to consider:

- Focus on high-impact actions or changes.
- Conduct external research and start with secondary research.
- Use direct observations if available.
- Incorporate ethnographic interviews, if needed.
- Benchmark excellent examples.
- Always provide multiple options for solutions acknowledging constraints and / or tradeoffs for each.

Options for tools:

Creative strategy, Insight Matrix, Creative matrix, Napkin Pitch, cover story, message map, Importance/Difficulty Matrix, Pareto chart, Gantt chart

Sage advice or points to ponder:

- Seek out a wide range of options for the solution and use feedback from stakeholders to narrow the options.
- For each option presented indicate the time required, the feasibility, and the level of solution effectiveness.
- Once you have feedback on the ideas for solution, determine the best for the situation. It may be a combination of the various original options presented to the stakeholders.

4. Implement a pilot.

A pilot is a method to use a small-scale test to implement. A pilot can reduce the risks associated with a change, be less costly, and take less time. Additionally if the change is a new concept, the pilot can provide proof that it might or might not work.

Questions to ask:

- What is the optimal and what is the MVP (minimum viable product)?
- What are the risks to identify?
- What will success look like in terms of technical feasibility and business viability?
- What is the best group for the test run?

- How might success be assessed and evaluated?
- What is the timeframe for the pilot?

Ideas or actions to consider:

- Be clear on your hypotheses with a well-defined objective and outcome.
- Test all assumptions.
- Set the pilot group up for success with details including clear roles and responsibilities.
- Communicate with all involved including stakeholders.

Options for tools:

3 bold steps, flow chart or deployment flow chart, data collection sheets

Sage advice or points to ponder:

- Collect data as you go. Document, document, and document.
- Collect feedback from all involved to gain insights.
- If reasonable, make tweaks to the process as you pilot.

5. Study the results and adjust.

The goal for any change effort is to improve a process. Studying the results data from the change can validate the new process. It can also show where to tweak or adjust—and more importantly, whether to move forward or not.

Questions to ask:

- Is the result what was expected in terms of outcomes?
- What worked well? What did not work well?
- What, if any, are the unintended consequences of the improvement?
- What surprised you about the solution?
- What questions do you have now about both the solution and the results?
- What is needed for the new process to be standardized and adopted throughout the organization?
- What resources do you need that you did not have?

Ideas or actions to consider:

- Measure the results of the solution using qualitative feedback and quantitative metrics.
- Analyze the data and make comparisons with initial state.
- Make corrections and adjustments as needed, e.g. zig with intent.
- Develop a visual storyboard to share the challenge process with others.

- Determine if another pilot is needed or if you are ready to scale.
- Celebrate a new milestone.

Options for tools:

After Action debrief, project debrief, decision story board, Gantt chart, control chart

Sage advice or points to ponder:

- If the pilot did not work as expected, what might that say about the process and or the larger system?
- If it worked, and based on all the findings and insights from the solution seeking experience, what is the next cycle for improving the process?
- Pilots allow for testing a theory for improvement; do not hesitate to acknowledge that the solution does not work, and you need to run a revised pilot or return to the drawing board for a different solution.

Standardize the New Process for Success

Getting better at getting better is a continuous process that is not over once the solution has been identified. There are various ways to ensure continuing excellence for this process, for the solution team, and for the organization. The first step is standardizing and integrating the improvement with other processes.

Questions to ask:

- What was learned about the system, the process, and the people involved?
- How will the lessons learned from the improvement process be incorporated into the new standardized process?
- What are the measures of success going forward?
- How will the process continue to be monitored?
- What training will be required for whom, by whom, and when?
- What documentation will be required, both new such as job aids and current such as updates to SoPs, etc.?
- What is the change management strategy?

Ideas or actions to consider:

- Draft an action plan for full launch.
- Continuously monitor the process.
- Include the measures of performance within the organization performance measurement system.

Options for tools:

Process map, draft SOP

Sage advice or points to ponder:

- How might the data gathered, and the lessons learned from this improvement cycle be used with other improvements?
- Based on these experiences, what skills are needed by the team members to enhance their team's problem-solving ability?

Summary

Solution finding for challenges is not a one-and-done activity but a dynamic and iterative continuous process for performance improvement. It requires both structure and adaptability, science, and art.

The skills associated with problem identification and solution finding are many and varied. They run the gamut from future-thinking (“looking around the corner”) to deductive reasoning (deducing lessons from experiences) to pattern recognition and the ability to see themes and from those themes glean insights and make inferences.

For organizations to excel at high levels of performance, all employees need to focus on continuous improvement that enhances individual and team performance, process results, and competitive advantage for the organization. This implies constantly getting better at getting better at identifying opportunities for making work processes more effective and efficient, gaining skills associated with solution finding, and increasing personal capabilities to work as part of a collaborative team.

There is no single right way to find a solution for a challenge. Many problems are symptoms of other processes. However, there are frameworks, tools, and techniques to use in most every situation.

The big takeaways include:

- Plan and iterate for clarity, focus, and scope.
- Use tools and data to slow down—rather than rushing to solution.
- Assess, research, review, reflect, and repeat.
- Combine the structure of the framework and tools with creativity.
- Let the data drive the decisions.
- To be more creative, use a diverse network of people with a co-design mindset focusing on a common goal and using structured tools and techniques.

Operational Definitions

(Unless noted, the definitions are from Process Improvement: The DSMC Approach.)

Frameworks or models for problem solving:

- PDSA (Plan Do Study Add)
- CIRCLES (comprehend, identify customer, report needs, cut through priorities, list solutions, evaluate tradeoffs, and summarize)
- Creative Strategy (based on work of William Duggan at Columbia University)
- DMAIC (Define Measure Analyze Implement Control)
- The McKinsey Method–mckinsey.com/featured-insights/mckinsey-guide-to-problem-solving
- FEMA Model (Fail Mode and Effects Analysis)
- Futures Thinking–futuresframework.com/insights/what-is-futures-thinking/
- Iceberg Mode–The iceberg model is a systems thinking tool that can be used to uncover the patterns, structures, and mental models that trigger problematic events.
- IDEAL Model (Identify, Define outcome, Explore options, Anticipate outcomes and Act, Learn)
- Kepner-Trego Model–mindtools.com/atznth6/the-kepner-tregoe-matrix
- MECE (Mutually Exclusive, Collectively Exhaustive)

Minimum Viable Product: A minimum viable product is a version of a product with just enough features to be usable by early customers who can then provide feedback for future product development. A focus on releasing an MVP means that developers potentially avoid lengthy and unnecessary work.

Pareto Chart: A graphic tool for ranking causes from the most significant to least significant based on the principles of economist Vilfredo Pareto that suggests 80 percent of effects come from 20 percent of causes. In the 1950s under the work of J. M. Juran it became one of the seven tools of quality and is commonly referred to as the 80/20 rule.

System: A collection of processes and people aligned toward serving a common purpose or aim. It includes inputs, outputs, feedback mechanisms, and customers.

Tiger Teams: Tiger teams are like an elite task force. You use them when you need to act fast and solve business-critical issues or more complex problems; Tiger Teams are cross-functional teams pulled together for a specific period of time to address a critical issue

Tools

There are various sets of collaborative problem-solving tools—and they come from a variety of disciples such as project management, design think, LEAN, AGILE, quality management, and creativity sets. Many are now available as virtual tools. There are, however, some standard protocols for using collaborative tools more effectively. These include:

- Making sure the target or goal is known to all; generally, this is a trigger question
- Having clear instructions for using the tool
- Starting with individual working silently using documentation and then going into collaboration and sharing
- Using visual templates when applicable and to the extent possible
- Setting a time and having a timekeeper to track; time-boxing activities for groups works best rather than being subjective with the amount of time
- Using a series of tools together
- Documenting the team's process for getting from A to B to C (many times this is done with a visual storyboard)

These tools have been collected and used for more than 30 years. They have been adapted for various situations, altered, tweaked, and adjusted. Many are from ***Process Improvement: The DSMC Approach***, Gamestorming, The Grove, LUMA Institute, and other practitioners referenced in the resources list. For the most part, the ones curated for this toolkit have been used at various ATD Forum labs.

Tools

3 Bold Steps: The purpose of this tool is to develop an action plan with up to three bold steps to move closer to the desired solution. The action steps flow from the data, ideas, and insights you have been collecting and working with as you walked through the solution finding steps and as you received feedback from your options.

This action plan synthesizes the most relevant tactics and serves as a conduit from the problem to results for a solution through specific and contextualized actions or bold steps. The action plan includes the tasks, people to connect with, and the timeline (limit to 90 days). Once the action plan is developed but before moving into action the team needs to carefully respond to the following:

- What makes your action steps bold?
- How are your bold steps related to the challenge?
- How do your actions satisfy your performance objectives?

- What are the measures of success?
- What are the barriers for completing this action plan?

The action plan serves as a guide for the next steps.

Credited to: Patti Dobrowolski

The challenge question is: ______________________________

The bold steps to create a solution that works are:

Bold Steps	Tasks Related	People Involved	Due Date (no more than 180 days)
The barriers to accomplishing these actions including technical feasibility and budget constraints are:			
The measures of success are:			

How do these action steps:

Align with the larger business strategy or objectives and integrate with the known attributes needed for a systems approach?
Address the current customer pain points?
Add value to the customers?

Stop and Think questions about these Bold Steps are:

5 Whys: The purpose of the 5 Whys is to quickly separate a problem's symptoms from its root causes. The 5 Whys is a method to clarify and understand the root cause of a problem or concept. The process uses a trigger question to ask WHY five times. However, each WHY is linked to the preceding response. The responses to the WHY must be validated by observation, experience, data, facts, and / or history. If the issue is extremely complex, other tools may be more useful. Mistakes or misuse of the questions can provide information that is false or misleading. The 5 Whys can be an individual tool and then converted into a consensus tool for small groups.

The 5 Whys is based on a game by Sakichi Toyoda and is part of the Toyota Production System (TPS) quality suite. It is more effective when used in conjunction with other tools. If the issue is extremely complex, other tools may be more useful. Mistakes or misuse of the questions can provide information that is false or misleading.

Credited to: Six Sigma quality suite of tools

5 Whys Analysis Template

Trigger question:

Round	Response	Validation Data, Facts, or Comments
1		
2		
3		
4		
5		

Affinity Diagram or Clustering: This is a graphic tool for organizing large amounts of ambiguous, redundant, and seemingly unrelated data into logical categories for further analyses. The data is generally gathered using a brain writing approach. The initial brainstorming to generate ideas needs to be individual and in writing. Having these ideas on sticky notes makes it easier for posting and moving around. Once the ideas have been generated, the sticky notes are posted for everyone in the group to see. Silently, individuals start sorting the ideas into "like" buckets or groups. The sorting continues without talking, based on perceived commonalities and / or linkages until all of the individual ideas are in groups.

This sorting and clustering is followed by a discussion for each group and the "labeling" of each cluster. During the discussion, the sticky notes can be rearranged and changed. It is also common to have an "outlier" cluster that is labeled miscellaneous.

Credited to: *Tool Time* and *Innovating for People*

After Action Debrief: Modeled after the Army After-Action Review, the debrief is a structured and documented process to review lessons learned. It answers five key questions: 1) What was supposed to happen? 2) What actually happened? 3) What went well and why? 4) What did not go well and why? 5) What should be changed for next time? It is similar to a project debrief and can be used in conjunction with the project storyboard.

Debriefing and assessing progress does not wait until the end of the project, however. Retrospectives associated with AGILE methods can be completed after every meeting or any time the team reflects on the past to improve the future. Tools like the Plus / Delta or Roses and Thorns provide quick listing of the things that worked well and the things that did not work so well. The After-Action Review considers the totality of the project.

AhHa / ToDo Sheet: AhHa / ToDo is a format to capture ideas for actual use in your practice. Think of it as an extension of capturing ideas on the back of an envelope. It is a two-column sheet with the AhHa on the left and the ToDo on the right. As you hear, read, or see things that "ring a bell" with you, capture them in the left column. Then intentionally jot down how you would use the idea in your own practice on the right.

AhHa	To Do

Credited to: *Tool Time*

Brainstorming and / or Brainwriting: Many people think that brainstorming, or ideation, is so simple that they just do it without any guidance and / or facilitation. Additionally, many participants think they know how to do it and they do it incorrectly. There are guidelines that need to be followed for this type of ideation to be effective and for the time to be most valuable for the participants. Few things will disengage participants more than asking for ideas, and then not accepting their statement of the idea. Some of the techniques that increase participation and response rates include:

- Use small groups to start—the combined efforts can be collated after the initial "data dump."
- Alternate between brain writing silently and individually and brainstorming verbally in a group. Otherwise, vocal and extroverted participants can dominate.
- Separate data generation from discussion. Never allow the facilitator to make judgments on the suggestions.

- Have the ideas written and documented in some way—of course, technology makes that easier.
- Do not allow the facilitator to change the words; capture exactly what is said.
- Consider using several scribes if the group is large as well as a formula for how the reporting will progress from person to person. This process will increase the speed of the reporting and keep the momentum.
- Time box it—but add an element of competition to energize the group (the group with the longest list wins).
- Aim for high numbers; many say that a list has to be longer than 100 ideas to get at the creative responses.

Credited to: *Tool Time* and *Innovating for People*

Charter: For any team project or design activity there needs to be an outline or framework. In the world of project management this is generally called a charter and in the design thinking arena it might be referred to as a design brief. Others might call it a game plan, a playbook, a business case, or simply an outline or roadmap. In reality, it can be a half page outline or a collection of documents. The purpose is to initiate, define, and formally authorize the project.

The goal is to get all of the players on the same sheet of music related to the goals, the performance expectations, the schedule, and the costs of the project. Based on the size and scope of the project, the charter can be as detailed as the team wants it to be. It is drafted by the project team and reviewed and approved by the sponsors or major stakeholders.

Because it is one of the first documents developed it is drafted with partial or limited information. The template provides a sampling of the information that might be included. As the project moves forward and gets more definitive, other documents can be added such as the research plan, a milestone chart, and even a communications plan.

The benefits of a charter include:

- Focusing the entire team on one vision
- Authorizing resources
- Providing both guidelines and boundaries

The Project Charter—Planning for Success

Project Charter	
Project Name: Start Date: Anticipated End Date: Locations for connections (links, etc.):	
Purpose for the project:	
Scope of the project, e.g., what is included and what is not included:	
Project sponsors and their roles:	
Project managers and their roles:	Primary customers or targeted users of the deliverable:
Other unique project stakeholders and their roles or responsibilities:	
Business objectives for the project:	
Project participants:	
Approach to be used:	
Expected benefits:	
SMART goals for the project:	
Expected deliverables:	
Completion Date:	
Budget:	
Assumptions including possible constraints:	
Link to department or organizational strategic objectives:	

Project Charter
Link to department or organizational strategic goals:
Success measures:
Other documents needed for tracking purposes:

Checklist: At its essence, the checklist is a guide to trigger actions and, depending on the list, to keep on schedule or within a designated timeframe. It comes in many forms—a to-do list with cryptic annotations, a grocery list on the back of an envelope, or a digital tracking list with task, point of contact, status, and completion date. The list can be formal with various columns or a free form list.

Check Sheet or Data Collection Sheet: A check sheet is a simple-structured, data-recording tool that helps answer "How often do certain things happen?". It is useful when you need to gather data based on sample observations. Because of the uniqueness, it is best if designed by the users based on their needs.

Credited to: *The Memory Jogger*

Chili Table: The Chili Table is a combinatorial way to use brainstorming to mix up various ingredients for new combinations and therefore new ideas. Using a matrix, list the categories across the top. For example, if the topic was creating opportunities for employees to improve wellness the categories might be food, exercise, incentives, and ways to engage employees. Next, the group lists all ideas for each category. Then they mix and match from the various categories for a variety of different proposals. The Chili Table tool is similar to LUMA's Creative Matrix. Both promote divergent thinking, help generate a large number of new and unusual ideas, and benefit from input from everyone.

This is a sample you might develop for a healthy lunch bowl.

Categories				
	Greens	Protein	Vegetables	Toppings
Ideas				
	Iceberg Cabbage Spinach Kale	Beef Chicken Shellfish Fish Plant based	White beans Corn Red beans Black beans Diced tomatoes Sliced jalapeños Onions Radishes	Cheese – American Feta Queso Fritos Saltines

Credited to: *The Designing for Growth Field Book*

Concept Poster: A concept poster is a graphic depiction of a business case, an idea, or any concept you have brainstormed. The depiction should be large, no smaller than 11 x 17 if designed for an individual and the size of an easel sheet for a small group. The depiction should include several sections. For example, a concept poster for a product or service can depict the topic or idea, features, benefits, advantages, intended audiences, and, possibly, a proposed timeline. It should be a mix of graphics and words. Another way to depict a concept poster using technology is creating an infographic. A concept poster can also be used to summarize an experience. The tool graphically promotes a shared vision within a group; helps groups get buy-in from decision-makers and can provide a roadmap for moving forward.

Credited to: *Innovating for People*

Control Chart: See Run Chart and check out *The Memory Jogger* at goalqpc.com/

Cover Story: A time-tested adage for moving to a new place is part of Stephen Covey's seven habits: Start with the end in mind. Developing a cover story enables a group to visualize the success for any major change initiative or strategy. This tool is about imagining the wildest dreams for the organization or group but includes a large dose of reality. The idea is to imagine an ideal future where the project has succeeded to the point where it is featured on the cover of a well-known magazine.

In *The Grove* and *Gamestorming* versions, the following sections are included:

- The **cover** uses graphic images to capture the BIG story of this success.
- **Headlines** convey the substance of the cover story. What accomplishments are detailed in the headlines? What are the achievements and / or successes? What obstacles were overcome?
- **Images** are for supporting the content with illustrations. What images do you see that give clarity to understanding all that has happened?
- **Sidebars and call-outs** reveal interesting facets and features of the cover story. What are the sidebars?
- **Quotes** can be from anyone as long as they are related to the story. What are the quotes you see?
- Additional topics may be **feature articles** and **photos.**

Creative Strategy: The formal strategy is based on William Duggan's research and his related books including ***Strategic Intuition: The Creative Spark in Human Achievement, Creative Strategy: A Guide for Innovation***, and ***The Seventh Sense: How Flashes of Insight Change Your Life***. The focus is on developing creative challenge-solutions once you have conducted analyses, not deeper and deeper analysis of the problem.

In the typical strategy process, organizations conduct analyses and then move directly into planning—without consideration for innovation or creation options. In most innovation processes, those involved determine the challenge and move directly into brainstorming new ideas—possibly without the deep analyses needed to understand the real issue. The creative strategy process does not start with brainstorming new ideas. It is about starting with strategic analysis by researching and documenting information on specific ideas and practices that have already been successful. This method inserts the creative process after completing the analyses and then, moves into planning the challenge-solution. In essence, it is a four-step process—albeit with many iterations for each step. The steps include:

1. Conducting a "rapid appraisal" with stakeholders to determine the goal for the challenge or problem
2. Breaking the goal down into six or less essential and critical elements or components of the challenge and then inserting them into a graphic organizer called an "insight matrix"
3. Searching for proven examples of success or "precedents" for these elements from different industries using "what works scans" research
4. Combining various precedents in creative ways to design a new "big idea" challenge-solution

Credited to: William Duggan

Read more here: td.org/magazines/td-magazine/intentionally-build-aha-opportunities

Creative Strategy Insight Matrix

Challenge Goal:

	Examples of Success			
Critical Elements	**Company A (Industry Z)**	**Company B (Industry Y)**	**Company C (Industry X)**	**Company D (Industry W)**
Element 1				
Element 2				
Element 3				
Element 4				
Element 5				

Empathy Map: An empathy map is a synthesis tool to help quickly uncover latent users' needs and goals. Good design is grounded in deep understanding of the person for whom you are designing. Designers have many techniques for developing this sort of empathy. An empathy map is one tool to help synthesize observations and to draw out unexpected insights. Empathy maps can evolve into personas. The concept is based on Carl Jung's concept of archetypes that describe patterns of behavior.

Using the template as a model, group members complete ideas for the following:

Step 1:

SAY = Quotes and Defining Words—Capture on sticky notes the specific quotes from the user, as well as any unusual phrases or words that struck you as something that might contain a deeper meaning.

DO = Actions and Behaviors—Capture observations of the user doing the work. Write down specific details or even drawing out diagrams can be useful here.

THINK = Thoughts and Beliefs—This quadrant should contain phrases that begin with "I think…" or "I believe…" that were specifically stated by the user. You might also capture other thoughts and beliefs that may not have been explicitly stated but can be inferred from what the user said.

FEEL = Feelings and Emotions—Capture feelings and emotions the user displayed or talked about having. Capturing feelings and emotions that specific experiences elicited will also be useful here. You might also capture other feelings and emotions that you infer from actions and behaviors observed.

Step 2:

Complete comments for the following:

GOALS = Describe what the person wants to be, achieve, etc.

NEEDS = Document what the person needs.

GAINS = Document the current successes, the actions or skills that are working for the person and will leverage achieving his or her goal.

PAINS = Document the current pain point, e.g., what is keeping the person from reaching his or her goal?

Download an Empathy Canvas here: gamestorming.com/empathy-map-canvas-006/
Adapted from: *Gamestorming*

Fishbone Diagram: A Fishbone Diagram is a graphic depiction of the relationship among a given outcome and all factors that influence that outcome or effect. By separating the factors, it isolates them and makes them easier to address. The diagram resembles the skeleton of a fish with a head, spine, backbones, and sub bones. It is also called a Cause and Effect or Ishikawa Diagram. This cause analysis tool is considered one of the seven basic quality tools.

Process: There are several ways for a group to conduct a Fishbone or Cause and Effect Diagram. The starting point is a problem within the system. From that point, you can ideate, cluster like topics into an affinity diagram, and then, label each primary cause as described here. Or, you can start with the categories of manpower (people), materials, methods, and machines and then ideate.

The tools starts with 8-10 minutes of silently and independently writing every possible factor causing the problem on a sticky note. Then in round robin fashion the group posts one factor at a time. If others have the same factors, they post them on top of the first sticky. If others have factors that are related to this cause, post the sticky close together in a clustering manner.

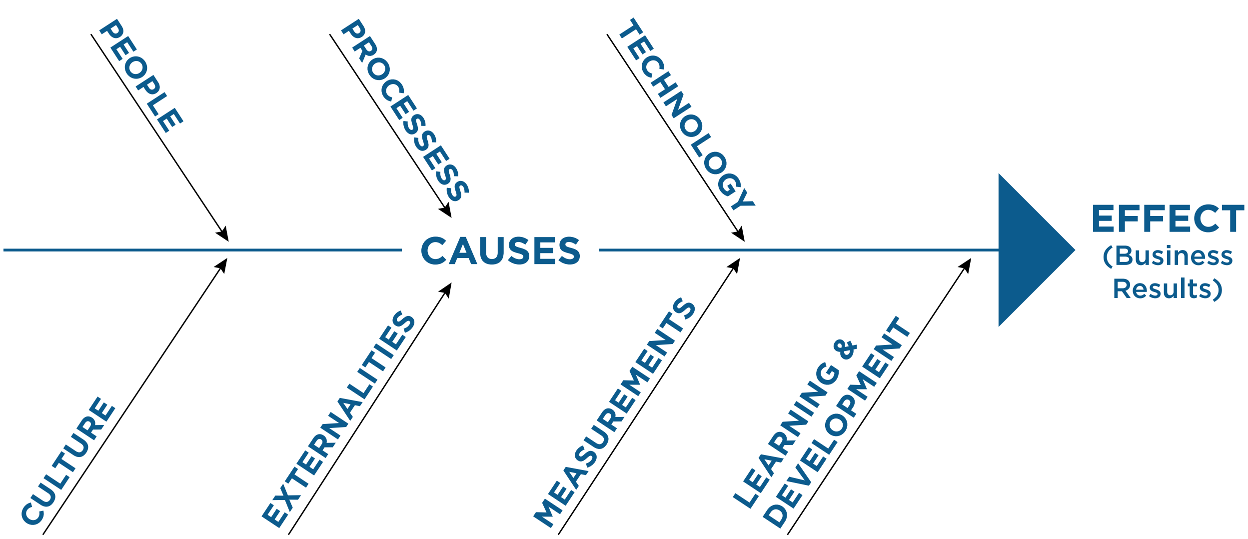
This posting process is continued until all the factors have been reviewed and posted. If anyone in the group thinks of other factors during the discussion, they can be written and posted.

Each cluster is reviewed. Do other factors need to be added? Do factors need to be moved to another cluster? Are there outliers that do not belong with anything else? What is the theme or the word that best describes the cluster? Label each cluster. The cluster labels become the major backbones of the fish or major causes of the issue. Minor causes of variation can be placed on each of the major backbones.

Assess the causes for priority. You may need data to prioritize the possible causes.

Another way to address the causes is to conduct the 5 Whys for each one. The location of the bones does not indicate priority.

Credited to: *Tool Time*



Flowchart and Deployment Flowchart:

A flowchart uses standard symbols to graphically chart a process using the sequence of steps and actions involved in completing a task. A deployment flowchart is the sequence of tasks and also includes the cast of characters—or who is doing what. Pictorially representing the steps can assist with identifying trouble spots. Flowcharts are developed by those with expert knowledge of the process.

Credited to: *The Memory Jogger*

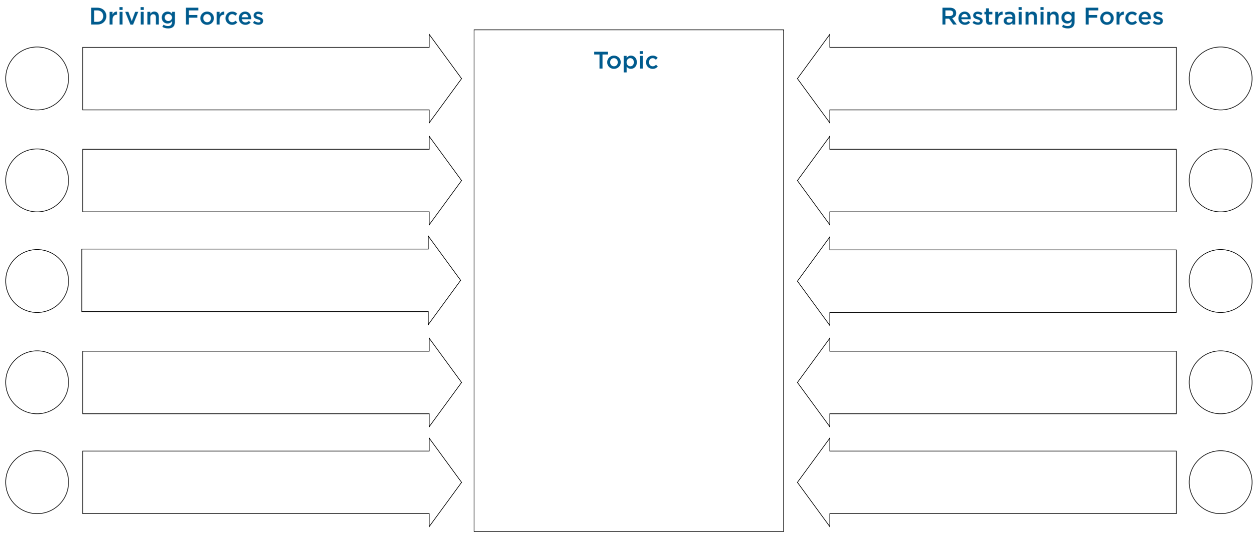
Force Field Analysis: A force field analysis (FFA) is a visual depiction of forces affecting an initiative or desired change or desired state. It includes forces that drive or support the change and forces that restrain or curtail successful implementation of a solution or a change. Visually representing these forces enables seeing, assessing, and evaluating all the impacting forces to leverage strengths (driving forces) and consider how to address or minimize barriers (restraining forces). The FFA is based on the work of social psychologist Kurt Levin.

When displayed in vertical columns with the center being the current situation, the forces can look like they are pushing and pulling.

The process starts with individual and silent brainstorming. It then includes affinity clustering to group common forces and labels each cluster. The group votes on the clusters to determine the impact for either driving or restraining.

Credited to: Process Improvement

Force Field Analysis Template



Summary Statements:

Gantt Chart: A Gantt chart is a form of a bar chart with horizontal bars used to break a large project into smaller chunks. It displays scheduled versus finished work in relation to time. It is especially helpful when activities need to be completed in sequence. The sequence of activities is in the left column. The times are across the rows.

Credited to: *Tool Time*

Histogram: A histogram is another form of a bar graph displaying a summary of patterns in the data showing the variation and distribution Because it displays the spread of the data it can also show the skewness away from the midpoint.

Credited to: Memory Jogger; one of the Seven Quality Tools

Importance / Difficulty Matrix: The Importance / Difficulty Matrix's purpose is to gain collective insight on the priority of a large numbers of issues, solutions, and/or ideas based on criteria of how important they are for success and of how difficult to implement. The 2 x 2 matrix generally uses the horizontal axis for importance and the vertical axis for difficulty.

After the project's ideas or concepts are identified on sticky notes, convene a group of stakeholders for discussion and come to a consensus on the importance and difficulty of each independent idea. Place each idea on a sticky note within the matrix based on its importance and its difficulty. For implementation, generally start with the low hanging fruit, e.g., Low Importance and Low Difficulty.

High Difficulty / Low Importance	High Difficulty / High Importance
Low Difficulty / Low Importance	Low Difficulty / High Importance

From: *Innovating for People: Handbook of Human-Centered Design Methods*

Is...Is Not Analysis: The Is...Is Not Analysis is a versatile tool that can be used as a quick and logical way to define an issue's scope and boundaries or for a more in-depth analysis to investigate a problem's root cause. The Is...Is Not tool helps a group keep the project within a charter's boundaries, keeps a project from scope creep, and enables the group to stay focused. It is useful to conduct this analysis early in the process and to use it constantly to justify limitations to the work. If used for root cause analysis, add other root cause tools such as 5 Whys and Fishbone Diagram to supplement the findings.

The Is...Is Not works either as an individual or a small group tool. Create a chart with the following diagram:

Situation:		
Is / Yes	Is Not / No	Difference
1 2 3	1 2 3	

Brainstorm the characteristics, dimensions, and facts related to the situation and list them in either the Is or Is Not column. Review the lists and seek consensus. To delve deeper, list the differences between the Is and the Is Not.

From: Kepner-Trego at: kepner-tregoe.com/

KWHW Organizer: The purpose of the KWHW Organizer is to serve as a structured process to enable individuals or groups to surface, sort, organize, and understand large amounts of disparate information that is both known and unknown to figure out what learning is needed and how best to accomplish it. The process enables individuals and groups to determine patterns, themes, and priorities in pursuing information related to a broad topic. Additionally, it creates structure for the research and ideation phases needed for further understanding and learning. It is basically priming the pump prior to developing a definitions goal and an action plan.

The KWHW graphic organizer is divided into these four columns:

K=KNOW—What do you currently KNOW about the topic? The purpose of the KNOW column is to determine a starting point for further research based on current knowledge. The K column can serve as a hook for attaching new questions and information.

W=WANT—What do you think you WANT to learn about the topic? The purpose of the WANT to learn column is to target what new information is currently needed. This determines the direction of the research and actions.

H=HOW—HOW might you learn about this topic? Use the HOW column to document ways to learn new information. What research methods can be undertaken? How will you cast a wide net to investigate the various opportunities for learning?

W=WHO—WHO can assist you with your exploration of this topic? The WHO column includes thought leaders on the topic, practitioners experienced in utilizing the topic, vendors training on the topic, bloggers writing on the topic, podcasters, learning professional colleagues incorporating concepts related to the topic, and many others. This list needs to include people you can bounce your ideas off of, not just a list of authors.

Credited to: The original tool was designed by Donna Ogle as a three-column organizer for students and was known as the KWL (Know; Want to Know; Learned). The organizer was designed to be used with a unit of study. The KWHW version was designed by M.J. Hall.

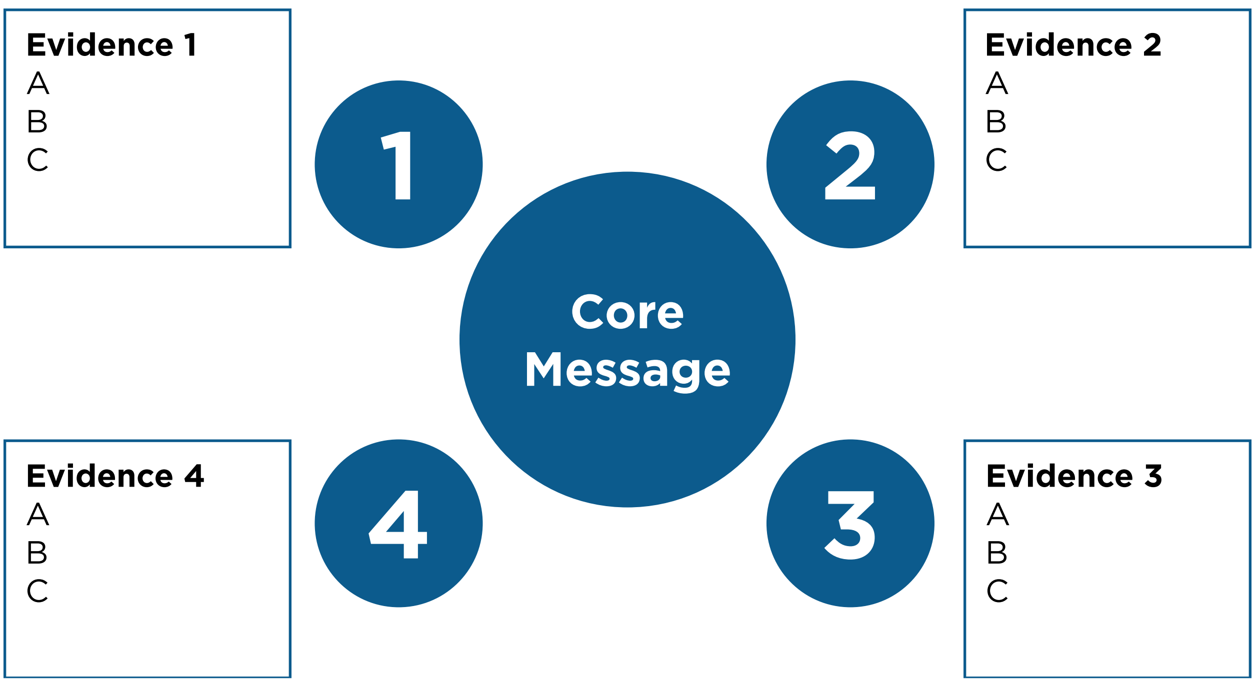
Message Map: A message map serves as a framework or guide for distilling large amounts of data and information into the essentials and using evidence to support statements related to your point of view. The message map includes enough detail to enable others to easily comprehend the essentials of the message. To move the concise but factual message into an engaging story the team will create a storyline associated with the topic. This will enhance the context and provide opportunities for creativity**.**

The message map has the following components:

- **Core message** or theme of the content.
- Three or four **supporting ideas or drivers** of the core message: The core message needs to be backed up with examples, facts, and / or experiences.
- Two or three **evidenced-based facts or details** about each of the supporting ideas.

Credited to: Art Petty and used with permission.

Message Map Framework
Adapted from Art Petty



Napkin Pitch: The Napkin Pitch, originated by Dan Roam, is a simple method for pitching a new concept or solution to solicit both feedback and buy-in from stakeholders prior to finalizing the solution. It focuses on the big idea, the stakeholders need and usability, the technical feasibility, and the business viability. The napkin pitch process develops an idea into a more thorough concept—one that can be communicated easily and quickly (for example, captured on a paper napkin). The template for developing this napkin pitch is a variation of the design method from ***The Designing for Growth Field Book*** by Jeanne Liedtka, Tim Ogilvie, and Rachel Brozenske.

Use these trigger questions to make the discussion about the components richer and more informed:

1. What is the big idea?
   - Describe the concept, including why it is important now. (For instance, what business challenge will it solve or what process will it enhance?)
   - What is the backstory or context?
   - What are your assumptions about the action?
   - What questions do you have about this that the group cannot answer?
   - What are your “stop and think” questions that need further research?
2. Who are the users and what are their needs?
   - Who are the primary users or beneficiaries of this idea?
   - What is their current need related to this idea?
   - Why would this idea be important to them?
   - What questions do you have about the users or customers that the group cannot answer?
   - What are your “stop and think” questions that need further research?
3. What is the technical capability or feasibility for implementing this idea currently?
   - What is needed for this idea to become a reality?
   - What known tasks must be completed for this to happen?
   - What do you have control over? (For example, resources, time, people with unique skills, technologies, change of culture, or permission from superiors.)
   - What is the biggest hurdle to implementation?
   - What questions do you have about the technical capability or feasibility that the group cannot answer?

4. If implemented, what are the benefits to the business?
   - What is the business rationale for this idea?
   - What is the key benefit to the user and the business?
   - Will it increase performance capability, reduce cost or time, or provide other benefits?
   - What is the unique differentiator with this idea or practice?
   - What questions do you have about the business viability that the group cannot answer?

The actual pitch uses this format or a variation to tell the big idea concept in less than four minutes:

- (The **big idea**) Our silver lining idea is . . .
- (The **users** and their needs) The stakeholders and beneficiaries for this idea include . . .
- (**Technical capability**) We can execute this idea by . . .
- (**Business viability**) The results for the stakeholders will be . . .
- (**Business viability**) The value to the organization will be . . .
- (**Things we do not know about at this point**) The questions we are still grappling with are…

The Liedtka et.al book recommends having several napkin pitches, not just one. The end solution might be a variation of the originals; however, it also will have more buy-it from the stakeholders because it includes their ideas and choices. Consider using the Napkin Pitch process in conjunction with a formal ideation method, such as LUMA's Creative Matrix (*Innovating for People: Handbook of Human-Centered Design Methods*, 2012) or Darden's Chili Table (*The Designing for Growth Field Book* by Liedtka, Ogilvie, and Brozenske, 2014).

The Napkin Pitch	
Specific Challenge:	
Users and Stakeholders:	
Big Idea for addressing this challenge:	User Desirability: How will the users benefit from this process?

The Napkin Pitch	
Business Viability: How will using this process positively benefit the organization?	Technical Feasibility: What will need to be done and by whom to enable this process to become part of the way we operate?
S & T questions that need to be addressed:	
First Steps:	

NUF Test: The NUF (New, Useful, Feasible) Test is a quick and simple rating tool for a group to assess an idea, solution, or prototype against reality. Using a matrix, each idea is posted in a row and the columns are listed with NEW, USEFUL, and FEASIBLE. Using a ten-point scale, each idea is assigned a rating. For consensus purposes, this rating can be done individually and then as a group to discuss and to gain agreement.

The following criteria are options:

- **New—**Has it been done before and is it truly creative?
- **Useful—**Does it eliminate the user's pain or solve the stated problem?
- **Feasible—**Can it be accomplished with the constraints of the system (cost, resources, time)?

Also look at: Importance Difficulty Matrix

From: *Gamestorming* by Dave Gray, Sunni Brown, and James Macanufo

Operational Definitions: The purpose for using operational definitions is to have group clarity and consensus on terms for which there may not be shared understanding. Having operational definitions promotes a common language. For example, an operational definition for "excellent work environment" may be different for every company or even different departments in one company.

Because it is important to have input from every member, one technique for developing operational definitions is to post the word(s) to be defined in a visible location. Without talking or sharing, have everyone write his or her definition individually on an 8.5" x 11" sheet of paper.

Share the definitions in a discussion. If the common definition is not agreed on easily, pass the definitions around and have participants underline or circle words or phrases that are critical. Combine different phrases and or words to write collectively the definition.

Credited to: Percy Williams Bridgman en.wikipedia.org/wiki/Operational_definition

Parking Lot: A parking lot is a space, generally a flip poster on the wall, that provides a structure, method, and a physical place for a group to post ideas, notes, comments, requests, etc. to communicate back and forth anonymously with the facilitator or group leader. It can be divided into sections for questions, positive comments, negative comments, and suggestions. If a parking lot is used, all issues posted must be addressed.

In training, a parking lot is a project management technique that helps keep a meeting on track by capturing off-topic topics and ideas. It's also known as a cooler or meeting backlog.

Persona Profile: The persona profile is part of the design thinking methods toolkit and originated in the work associated with the user-centered experience. The profile provides an opportunity for a diverse group to quickly share ideas and research a particular role. This type of tool enables talent development professionals to gain a deeper understanding of a role and, from that perspective, gain skills and provide more personalized support. Shlomo Goltz writes in his blog:

> "A persona is a way to model, summarize, and communicate research about people who have been observed or researched in some way. A persona is depicted as a specific person but is not a real individual; rather, it is synthesized from observations of many people. Each persona represents a significant portion of people in the real world and enables the designer to focus on a manageable and memorable cast of characters, instead of focusing on thousands of individuals."

The components of a persona might include the work to be done including the tasks and role, the skills needed, the current pain points, and the questions and issues they would be concerned about. Personas are similar to empathy maps.

Credited to: *Innovating for People*

Plus / Delta: The Plus / Delta is an easy and simple tool for frequent assessments of a team status and other feedback. Draw a line down the middle of a sheet and on the left place + and on the right place a △. Have the participants provide their opinions either verbally in round robin fashion or silently with sticky notes. If this is a verbal activity, the trigger questions might be: "What worked—for the Plus?" And, "What did not work—for the Delta?" The pluses are actions that need to continue. The deltas are specific actions that need to be improved or changed.

Credited to: *Tool Time*

POPE (Purpose, Outcomes, Process, and Evaluation): The purpose of the POPE protocol is to provide structure to a process, task, activity, or meeting. The POPE cycle is a quick group process for providing structure to a task by gathering input from the participants for each of the four parts: purpose, outcome, process, and evaluation. Using the protocol developed by POPE enables the group to focus on the task at hand, provides clarity around the expected outcome and the method for getting there, and reinforces planning and reflection as a part of group process.

Credited to: *Tool Time*

Project Closeout Debrief: The questions on the project closeout worksheet are designed for reviewing a completed project and assessing successes and lessons learned. The goal is to review the original objectives in relation to the solution, as well as to gather relevant information about the implementation of the project to better plan future projects, improve implementation of new projects, and prevent or minimize risks for future projects. The project team documents the original goals, team members, successes, and challenges. It is similar to an Army After-Action Review.

L&D Project Closeout

<Insert Project Name Here>

OVERVIEW

Throughout each project life cycle, lessons are learned and opportunities for improvement are discovered. As part of our continuous improvement process, documenting lessons learned helps us to discover project success factors that should be replicated on future projects and the root cause of issues that should be addressed on future projects.

The objective of this worksheet is review the original learning objectives related to the learning solution, as well as to gather relevant information related to the execution of the project for better planning on future projects, improving implementation of new projects, and preventing or minimizing risks for future projects.

PROJECT GOALS

Goal / Objective

PARTICIPANTS

Name:	Role:

Project Success & Recognition (WHAT worked well?)	Factors That Support Success / Recognition (WHY did it work well?)

Project Shortcomings (WHAT did not work well?)	Recommended Solutions (HOW to fix next time?)	Owner (WHO owns this?)

Surprises (WHAT surprises did the project team encounter?)	Mitigation / Solution (HOW was it resolved?)

Project Maintenance Schedule
(WHEN will the project need to be revisited for updates, retirement or enhancements- Products / Services?)

Deliverable (WHAT is the deliverable name and / or description?)	Maintenance Start Date (WHEN should learning solutions components be revisited and evaluated for updates?)	Maintenance End Date (WHEN do learning solution components need to be updated and released to audience?)

Credited to: Forum member and based on an example from a learning project

Process Mapping: A process map outlines the individual steps within a workflow process, identifying task owners and detailing expected timelines. There are many options for templates and software, or it can be done manually using standard symbols, similar to the flowchart. Flowcharts break down the steps of a workflow; process maps are more detailed and contain a timeline.

Resource: td.org/content/td-magazine/which-performance-issues-are-impeding-progress

RACI: The RACI Matrix is a delegation chart or responsibility matrix that helps to map every step of the project in detail to avoid confusion and misunderstanding. It is a quick and visual way to identify primary players for a task associated with the project work plan and their responsibility levels. If this is a large project with multiple phases of design and development, the players might change for each phase.

RACI stands for:

R = Responsible: The stakeholders tasked with the doing the work.

A = Accountable: The stakeholder who approves of the project work and signs-off. This is generally one person who has the go or no-go decision and who most likely have fiscal authority.

C = Consulted: These stakeholders have input and possibly preliminary approval. They might include experts and those with similar projects.

I = Informed: These are stakeholder with peripheral engagement such as marketing.

An example of a RACI Matrix:

	Katie	Ryan	Tyler	Taylor
Task 1	C	A	R	I
Task 2	R	A	C	I
Task 3	R	A	I	C

Credited to: Project Management tools

Rose-Bud-Thorn (RBT): The purpose of RBT is to conduct analyses on a process, product, or practice by collaboratively documenting opinions in terms of positive, potentiality, and problems. While similar to affinity clustering in terms of documenting the known information about a topic and then clustering it into like groups, the RBT sorts the opinions into positives or opportunities labeled "roses"," negatives or challenges labeled "thorns," and those having potential to be more positive than negative labeled "buds."

The advantage of RBT over Affinity Clustering is the visual impact of seeing not only the issues in clusters, but seeing the ratio of positives to negatives and the ideas which, with nurturing and support, have the potential to turn into positives.

Also look at: Affinity Clustering

From: *Innovating for People: Handbook of Human-Centered Design Methods*

Run Chart: The run or line chart is the simplest tool to plot data over time to monitor a process for change or variation and therefore to see averages and trends. The measurement is on the vertical axis and the time is always on the horizontal axis. Once the data is plotted find the mean and draw the line horizontally. Analyze the patterns.

A run chart can be converted into a **control chart** to view consistency and thereby determine the stability of a process. From it you are able to identify and distinguish the common and the special causes of variation.

Credited to: *Tool Time*

SOP (Standard Operating Process): An SOP serves as a framework that outlines step-by-step instructions on how to perform a particular task or process within your organization. It provides clear guidelines to employees, ensuring consistency in performance and reducing errors. By standardizing procedures through an SOP template, you can enhance productivity, improve training processes, and minimize risks by being more consistent. The general parts or components of an SOP might include the purpose, the processes, the steps, and other. The purpose includes where the process belongs organizationally. The process includes the steps or tasks involved with who does what and when. The "other" component includes other helpful information such as a listing of assumptions and constraints. Every process has a unique SOP.

Stakeholder Mapping: The stakeholder map's purpose is to understand the people within the operating system. It better examines customers and stakeholders' needs so the products developed, and services offered are more aligned with workers' requirements on the job and with the organization's overall business strategies. Stakeholders are people who potentially influence and / or touch a product or service during its lifecycle.

A stakeholder map helps teams visualize and understand the relationships, hierarchies, and interactions between and among all the people who have an interest in the system or product/ service being designed. Stakeholder Mapping is a Human-Centered Design (H-CD) method to understand people and networks within a working context to frame a change initiative. LUMA Institute says, "a stakeholder map is a network diagram of the people involved with (or impacted by) a given system design." The LUMA version of a stakeholder map is not just a list of stakeholders, but it identifies them by title and by their opinion or influence, and their connections within the larger organizational context. This connectivity helps to explain important interrelationships for accomplishing work.

The stakeholder map version from LUMA incorporates several of the most important features of stakeholder analysis. Using people symbols and speech bubbles, the map visually highlights the granularity within the operating network.

From: *Innovating for People*

Other Resources: *Leading the Learning Function*; ATD Forum Toolkit, Stakeholder Relationships: Holding the Keys for Project Success

Stop and Think (S&T) Questions: Using questions is one of the most important skills for solving problems and conundrums. Lynne Waymon and her colleagues use the term "stop and think questions" in their work related to networking. The essence of the "Stop and Think Question" concept is asking a question that requires one to stop and think if they are to provide a response that is accurate and honest. While you may not take the time to research them, the big unanswered questions need to be captured. So, in a way it is like a parking lot for your unanswered questions.

A stop-and-think question works much like the Socratic method. It is a question that's not designed for an immediate response. Instead, it requires the participant to pause, reflect, think critically, or even conduct research or collect data to respond accurately. Responders must understand underlying presuppositions to provide a response that is accurate and honest.

Some typical stop-and-think questions include:

- If you could fix this problem, what might the solution be?
- What is the biggest lesson learned in your role as ______?
- What do you think are the top trends in ______ these days? Where is the field going?
- How are the issues you are facing now different from the ones you've faced in the past?
- Why are we doing this thing in this way?
- What is the fresh idea that will help your organization stand out?
- What if you approach your work in a completely unique way?

Credited to Bob Tiede: linkedin.com/pulse/stop-think-questions-bob-tiede

Storyboard for Improvement: The purpose of a storyboard for improvement is to display graphically the story of solving a problem or of designing a solution using the PlanDoStudyAct quality methodology. It is easily interpreted by others unfamiliar with the project without translation by a person. Additionally, it serves as an audit trail for the thinking, deciding, and generating ideas for the improvement. The storyboard is typically divided into sub-sections under the PlanDoStudyAct such as:

- Initial conditions that indicated a need for improvement (drivers)
- Purpose of the project or the statement of the problem
- Team working on the project
- Current situation
- Causes of the problem or challenge
- Theories for improvement
- Solution
- Future plans

Credited to: *Tool Time* and a variety of others including *Innovating for People*

SWOT: The purpose of the SWOT (Strengths, Weaknesses, Opportunities; and Threats) analysis is to gain an understanding of the organization's current capabilities and to determine external forces that can impact it either positively or negatively. The SWOT is an objective analysis of a current organization, department, product, service, process, etc. that uses information to identify which internal things are working well (strengths), which internal things are not working well (weaknesses), the external forces (opportunities) that might positively impact the organization, and the external forces (threats) that might negatively impact it.

Credited to: Albert Humphrey for some aspects, but it may be unknown

Timeline Story: The Timeline Story Technique graphically documents project tasks and processes in chronological order so everyone can "see" the thinking and decision-making's progression. The timeline also serves as an audit trail at a project's end. The timeline has sections for the chronology of a project. Using this format, the group documents in words, artifacts, samples, etc. the current progress for a project as well as posting the vision of the project at some later time. Unlike a storyboard, the timeline is driven by chronological time. Unlike a project milestone planning chart, the timeline story is completed after the actions have taken place. A timeline story is graphically rich with visuals and samples.

From: Unknown, but used frequently in project management

Tree Diagram and its Variations Including the Decision Tree: A tree diagram uses a visual representation to break a problem or solution goal into components using nodes and branches to show logical connections and or links. It is used in connection with other tools for root cause analysis.

From: *Six Sigma Memory Jogger II*

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